Amendments to the Specification:

Please amend paragraph 17 beginning at page 5:

[0017] The network analysis methods described here are based on algebraic multigrid (AMG) methods described by W. L.Briggs in "A Multigrid Tutorial", SIAM 2000 ~~and the Web site at http://www.llnl.gov/casc/people/henson/mgtut/ps/mgtut.pdf~~. The AMG is a multigrid method and is an efficient technique for solving partial differential equations. The basic idea of a multigrid method is to map the hard-to-damp low frequency error at fine level to easy-to-damp high frequency error at coarse level, solve the mapped problem at coarse level, and then map the error correction of coarse level back to fine level. A hierarchical grid structure with multiple levels is constructed to perform such multigrid computations. At each level, a forward iterative smoothing operator such as Gauss-Seidel erases high frequency errors. There are two kinds of multigrid methods: the geometric multigrid and the algebraic multigrid (AMG). The geometric multigrid method generally requires regular mesh structures. AMG does not require a regular mesh structure and can apply to other non-regular structures. In at least this regard, the AMG is a good alternative to the geometric multigrid method. The coarsening and interpolation operations of the AMG are based on the matrix itself. This overhead may make the AMG less efficient than the geometric multigrid method if the problem analyzed has a regular mesh structure.

No new matter has been added.